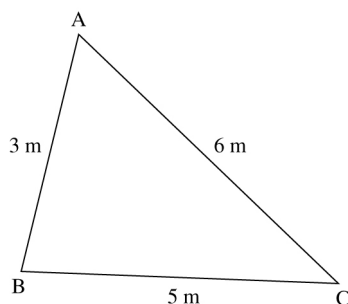


Test Yourself Chapter 11 Similarity of two dimensional figures

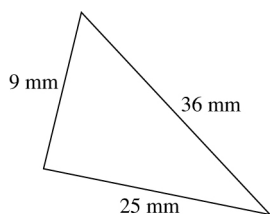
Name: _____

All Multiple Choice

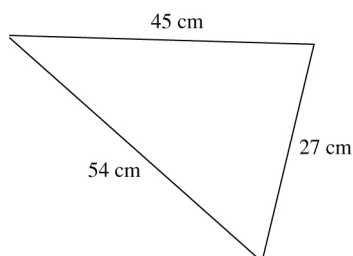
- 1** Which of the triangles drawn below is similar to $\triangle ABC$? **B**



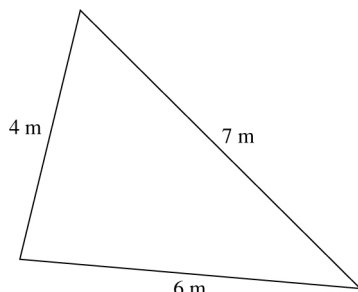
A



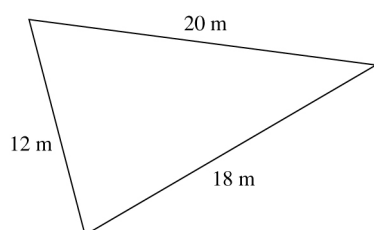
B



C



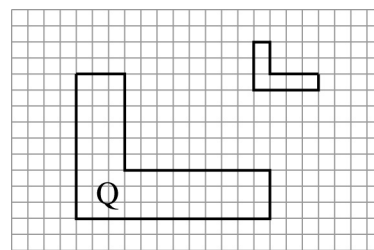
D



- 2** If $\triangle ABC \sim \triangle DEF$, which of the following is always true? **A**

- A $\frac{AB}{DE} = \frac{BC}{EF}$
 B $\frac{AC}{DF} = \frac{AB}{EF}$
 C $AB = DE$
 D $AC = DE$

3

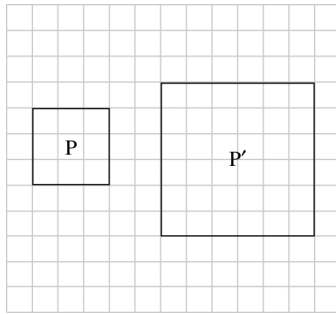


B

Object Q has been reduced by a factor of:

- A 2
 B 3
 C 4
 D 5

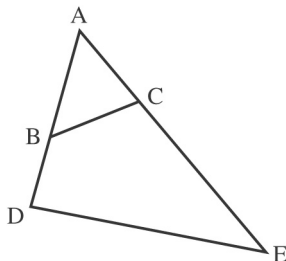
4



The two objects P and P' are similar.
The scale factor is:

- A 2
- B 3
- C 4
- D 5

5



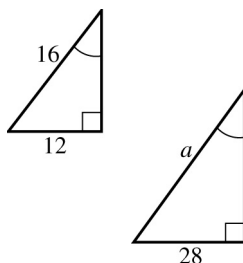
$\triangle ABC \sim \triangle AED$

Which of the following statements is true?

- A $\angle ACB = \angle ADE$
- B $\angle ABC = \angle AED$
- C $AB = AE$
- D $AB = AD$

6

The value of the pronumeral a in the pair of similar triangles in the figure below is:

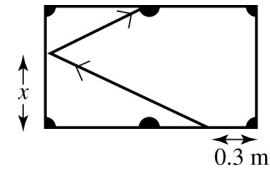


- A 36
- B 39
- C 35
- D $37\frac{1}{3}$

A

7

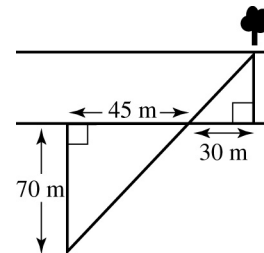
A billiard table is 1.4 m by 2.8 m. The ball should hit the side of the table as shown in order to go into the middle pocket. The distance x equals:



- A 0.6 m
- B 0.9 m
- C 0.7 m
- D 0.8 m

8

The width of a river can be determined using similar triangles. Using the diagram below the width of this river is closest to:



- A 48 m
- B 46 m
- C 49 m
- D 47 m

9

A flagpole casts a shadow 2.5 m long. A metre ruler at the same time casts a shadow 65 cm long. The height of the flag pole is closest to:

- A 3.7 m
- B 3.9 m
- C 3.8 m
- D 4.0 m

B

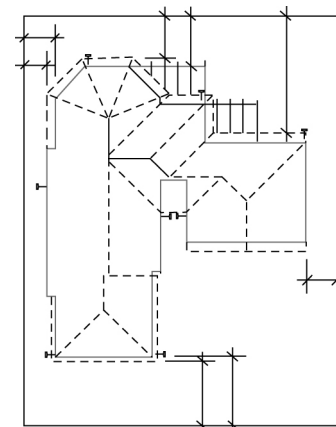
D

C

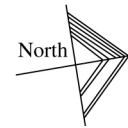
D

- 10** A photograph appears to show a dog (actual size 90 cm high and 3 m from the camera) to be the same height as a tower (40 m from the camera). The height of the tower is closest to: **C**
- A 14 m
B 11 m
C 12 m
D 15 m
- 11** A torch beam is 50 cm wide on a wall when the torch is 6 m from the wall. The width of the beam when the torch is 2.5 m from the wall is closest to: **A**
- A 21 cm
B 24 cm
C 17 cm
D 22 cm
- 12** If 1 cm represents 25 km, the ratio scale is written as: **D**
- A 1 : 2500
B 1 : 25 000
C 1 : 250 000
D 1 : 2 500 000
- 13** A scale of 1 : 250 has been used for a house plan. On the plans, the living room measures 5 cm by 2 cm. The dimensions of the room are: **C**
- A 1.25 m by 50 cm
B 1.25 m by 5 m
C 12.5 m by 5 m
D 12.5 m by 50 m
- 14** On a map the scale is given as 1 cm represents 4 km. The distance from Blasé to Hamadas is 58 km. The distance between these two points on the map would be: **B**
- A 0.06 cm
B 14.5 cm
C 232 cm
D 14.5 km

Questions **15** to **20** refer to the house plan drawn below.



Sweetapple Crescent



- 15** The width of the block of land is 21.3 m and measures 4.26 cm on the plans. The scale of the plans is: **A**
- A 1 : 50
B 1 : 500
C 1 : 5000
D 1 : 50 000
- 16** The frontage of the building is 4.8 m from the street. The distance that this is shown on the map is closest to: **A**
- A 1 cm
B 2 cm
C 4 cm
D 5 cm
- 17** The side of the house is shown as 4 mm from the northern fence. The actual distance of the house from this fence would be closest to: **B**
- A 1 m
B 2 m
C 4 m
D 5 m

- 18** The front door of the house lies at the end of a path that runs between the garage and the main body of the house. This path is to be 1.9 m wide. How wide will this path be, shown on the plans?
A 1.9 mm
B 3.8 mm
C 5.7 mm
D 7.6 mm
- 19** The width of the garage is shown as 13.7 mm on the plan. The actual width of the garage is closest to:
A 6.85 m
B 7.1 m
C 13.7 m
D 27.4 m

B**A**

- 20** The length of the block of land measures 5.7 cm on the plan. The area of the block of land in square metres is closest to:
A 99.6 m²
B 607 m²
C 2428 m²
D 12 141 m²

B